WHAT IS CLAIMED IS:

Please amend the claims as follows:

1. (Original) An apparatus for positioning of an object in at least one plane comprising:

a holding member configured to hold the object to be positioned;

a first axis positioning system, wherein the first positioning system comprises a first set of flexure linkages coupled to the holding member, wherein the first set of flexure linkages is configured to constrain movement of the holding member to a substantially linear motion along a first axis; and

a second axis positioning system, wherein the second positioning system comprises a second set of flexure linkages coupled to the holding member, wherein the second set of flexure linkages is configured to constrain movement of the holding member to a substantially linear motion along a second axis.

2. (Original) The apparatus of claim 1, wherein the first and second sets of flexure linkages comprise a plurality of elongated members.

3. (Original) The apparatus of claim 1, wherein the first and second sets of flexure linkages comprise a plurality of elongated members, and wherein two or more elongated members are flexibly coupled to form each linkage.

4. (Original) The apparatus of claim 1, wherein the first and second sets of flexure linkages comprise a plurality of

elongated members and flexible joints coupling the elongated members together.

5. (Currently Amended) The apparatus of claim 1, wherein the first and second sets of flexure linkages comprise a plurality of elongated members and flexible joints coupling the elongated members together, and wherein each of said flexible joints~~joint~~ is configured to allow rotation of the ~~joint around~~ elongated members through at least a degree range of motion.

6. (Currently Amended) The apparatus of claim 1, wherein the first and second sets of flexure linkages comprise a plurality of elongated members and flexible joints coupling the elongated members together, and wherein each of said flexible joints~~joint~~ is configured to allow rotation of the ~~joint around~~ elongated members through at least a 40 degree range of motion.

7. (Original) The apparatus of claim 1, wherein the first and second sets of flexure linkages comprise a plurality of elongated members and flexible joints coupling the elongated members together, and wherein the flexible joints contain substantially no frictional contact.

8. (Currently Amended) The apparatus of claim 1, wherein the first and second sets of flexure linkages comprise a plurality of elongated members and flexible joints coupling the elongated members together, and wherein at least one of the flexible joints further ~~furthers~~ comprises a rolling contact joint.

9. (Currently Amended) The apparatus of claim 1, wherein the first and second sets of flexure linkages comprise a plurality of elongated members and flexible joints coupling the elongated members together, and wherein at least one of the flexible joints further comprises a rolling contact joint coupling two of said elongated members~~; and wherein each~~ , with said rolling contact joint [[~~is~~]] being configured to constrain the motion of said two elongated members ~~of a linkage~~ such that [[~~the~~]] said two elongated members rotate about [[the]] said rolling contact joint at substantially the same rate and in opposite directions ~~during use~~.

10. (Currently Amended) The apparatus of claim 1, wherein the first and second sets of flexure linkages comprise a plurality of elongated members and flexible joints coupling the elongated members together, and wherein at least one of the flexible joints further comprises a rolling contact joint~~; and wherein each~~ , said rolling contact joint [[~~is~~]] being configured to ~~ensure~~ provide substantially continuous ~~and even~~ contact within the rolling contact joint over [[~~the~~]] an entire range of motion of the rolling contact joint.

11. (Original) The apparatus of claim 1, further comprising at least one motive device coupled to the holding member.

12. (Original) The apparatus of claim 1, further comprising at least one motive device coupled to the holding member, wherein each motive device comprises a magnetic linear servomotor.

13. (Original) The apparatus of claim 1, wherein the holding member comprises a wafer chuck.

14. (Original) The apparatus of claim 1, wherein the holding member is configured to hold a semiconductor substrate.

15. (Original) The apparatus of claim 1, wherein the first and second sets of flexure linkages each comprise at least two symmetrical flexure linkages.

16. (Currently Amended) The apparatus of claim 1, wherein the first and second sets of flexure linkages each comprise at least two symmetrical flexure linkages, and wherein the apparatus is configured to avoid [[~~any~~]] kinematic singularities ~~resulting from the symmetry~~.

Claims 17-30 (Canceled)

31. (Original) An apparatus for positioning of an object along a first axis and a second axis comprising:

a holding member configured to hold the object to be positioned;

a platform coupled to the holding member;

a first set of flexure linkages coupled to the holding member and the platform;

a second set of flexure linkages coupled to the platform;

a first motive device coupled to the holding member, wherein the first motive device is configured to move the

holding member in relation to the platform along a first axis; and

a second motive device coupled to the platform, wherein the second motive device is configured to move the platform along a second axis;

wherein the first set of flexure linkages constrains the motion of the holding member substantially to a single plane along the first axis; and

wherein the second set of flexure linkages constrains the motion of the platform to a single plane along the second axis.

32. (Original) The apparatus of claim 31, wherein the first set of flexure linkages comprises at least two opposed symmetrical linkages.

33. (Original) The apparatus of claim 31, wherein the second set of flexure linkages comprises at least two opposed symmetrical linkages.

34. (Original) The apparatus of claim 31, wherein the first set of flexure linkages comprises at least two opposed symmetrical linkages, and wherein the second set of flexure linkages comprises at least two opposed symmetrical linkages.

35. (Currently Amended) The apparatus of claim 31, wherein the first set of flexure linkages comprises at least two opposed symmetrical linkages, wherein the second set of flexure linkages comprises at least two opposed symmetrical linkages, and wherein the apparatus is configured to avoid

[[~~any~~]] kinematic singularities resulting from the symmetry.

36. (Original) The apparatus of claim 31, wherein the first and second sets of flexure linkages comprise a plurality of elongated members.

37. (Original) The apparatus of claim 31, wherein the first and second sets of flexure linkages comprise a plurality of elongated members, and wherein the elongated members are flexibly coupled to form the linkages.

38. (Original) The apparatus of claim 31, wherein the first and second sets of flexure linkages comprise a plurality of elongated members and flexible joints coupling the elongated members together.

39. (Currently Amended) The apparatus of claim 31, wherein the first and second sets of flexure linkages comprise a plurality of elongated members and flexible joints coupling the elongated members together, and wherein each flexible joint is configured to allow rotation of the ~~joint around~~ elongated members through at least a 20 degree range of motion.

40. (Currently Amended) The apparatus of claim 31, wherein the first and second sets of flexure linkages comprise a plurality of elongated members and flexible joints coupling the elongated members together, and wherein each flexible joint is configured to allow rotation of the ~~joint around~~ elongated members through at least a 40 degree range of motion.

41. (Original) The apparatus of claim 31, wherein the first and second sets of flexure linkages comprise a plurality of elongated members and flexible joints coupling the elongated members together, and wherein the flexible joints contain no frictional contact.

42. (Original) The apparatus of claim 31, wherein the first and second sets of flexure linkages comprise a plurality of elongated members and flexible joints coupling the elongated members together, and wherein at least one of the joints further comprises a rolling contact joint.

43. (Currently Amended) The apparatus of claim 31, wherein the first and second sets of flexure linkages comprise a plurality of elongated members and flexible joints coupling the elongated members together, and wherein at least one of the joints further comprises a rolling contact joint coupling two of said elongated members, ~~and wherein each~~ with said rolling contact joint [[~~is~~]] being configured to constrain the motion of said two elongated members ~~of the linkage such that the two elongated members~~ to rotate ~~about the joint~~ at substantially the same rate and in opposite directions ~~during use~~.

44. (Currently Amended) The apparatus of claim 31, wherein the first and second sets of flexure linkages comprise a plurality of elongated members and flexible joints coupling the elongated members together, and wherein at least one of the flexible joints further comprises a rolling contact joint~~; and wherein each~~ , with said rolling contact joint [[~~is~~]] being configured to ~~ensure~~ provide substantially

continuous ~~and even~~ contact within the rolling contact joint over [[~~the~~]] an entire range of motion of the rolling contact joint.

45. (Original) The apparatus of claim 31, wherein the first motive device comprises a magnetic linear servomotor.

46. (Original) The apparatus of claim 31, wherein the second motive device comprises a magnetic linear servomotor.

47. (Original) The apparatus of claim 31, wherein the first and second motive devices comprise magnetic linear servomotors.

48. (Original) The apparatus of claim 31, wherein the holding member comprises a wafer chuck.

49. (Original) The apparatus of claim 31, wherein the holding member is configured to hold a semiconductor substrate.

50-211. (Canceled)

212. (Previously Presented) An apparatus for positioning of an object in a plane, said apparatus comprising:

a holding member retaining said object;

a first set of flexure linkages coupled to the holding member; and

a motive device coupled to the holding member for moving the holding member, with the first set of flexure

linkages constraining the motion of the holding member to a substantially linear motion.

213. (Previously Presented) The apparatus of claim 212 wherein the first set of flexure linkages constrains the motion of the holding member to said plane.

214. (Previously Presented) The apparatus of claim 212 wherein the first set of flexure linkages comprises at least two opposed symmetrical linkages.

215. (Currently Amended) The apparatus of claim 212 wherein the first set of flexure linkages comprises at least two symmetrical flexure linkages, and wherein the apparatus is configured to avoid [[~~any~~]] kinematic singularities resulting from the symmetry.

216. (Previously Presented) The apparatus of claim 212 wherein each of the flexure linkages comprise elongated members and flexible joints coupling the elongated members together.

217. (Currently Amended) The apparatus of claim 212 wherein each of the flexure linkages comprise elongated members and flexible joints coupling the elongated members together, and wherein each flexible joint is configured to allow rotation of the ~~joint around~~ elongated members through at least a 20 degree range of motion.

218. (Currently Amended) The apparatus of claim 212 wherein each of the flexure linkages comprise elongated members and flexible joints coupling the elongated members

together, and wherein each flexible joint is configured to allow rotation of the elongated members ~~joint around at least~~ through a 40 degree range of motion.

219. (Previously Presented) The apparatus of claim 212 wherein each of the flexure linkages comprise elongated members and flexible joints coupling the elongated members together, and wherein the flexible joints have substantially no frictional contact.

220. (Previously Presented) The apparatus of claim 212 wherein each of the flexure linkages comprise elongated members and flexible joints coupling the elongated members together, wherein at least one of the joints further comprises a rolling contact joint.

221. (Currently Amended) The apparatus of claim 212 wherein each of the flexure linkages comprise elongated members and flexible joints coupling the elongated members together, wherein at least one of the flexible joints further comprises a rolling contact joint coupling two of the elongated members, and wherein [[~~each~~]] said rolling contact joint is configured to constrain the motion of said two elongated members ~~of the linkage such that the two elongated members~~ to rotate ~~about the joint~~ at substantially the same rate and in opposite directions ~~during use~~.

222. (Currently Amended) The apparatus of claim 212 wherein each of the flexure linkages comprise elongated members and flexible joints coupling the elongated members together, wherein at least one of the flexible joints

further comprises a rolling contact joint~~, and wherein each~~, with said rolling contact joint [[~~is~~]] being configured to ~~ensure~~provide substantially continuous and even contact within the rolling contact joint over [[~~the~~]]an entire range of motion ~~of the joint~~.

223. (Previously Presented) The apparatus of claim 212 wherein the motive device comprises a magnetic linear servomotor.

224. (Previously Presented) The apparatus of claim 212 wherein the holding member comprises a wafer chuck.

225. (Previously Presented) The apparatus of claim 212 wherein the holding member is configured to hold a semiconductor wafer.

226. (Previously Presented) An apparatus for positioning an object in a plane, the apparatus comprising:

a holding member configured to retain the; and

a plurality of flexure linkages coupled to the holding member, wherein the flexure linkages are configured to constrain movement of the holding member within a predetermined range of motion, with a ratio of a range of motion of the holding member to a characteristic length of the apparatus is greater than 0.05.

227. (New) A system for forming a pattern on a substrate comprising:

a patterning device; and

a substrate positioning device, the substrate positioning device comprising:

a holding member configured to hold the substrate;

a first axis positioning system, wherein the first axis positioning system comprises a first set of flexure linkages coupled to the holding member, wherein the first set of flexure linkages is configured to constrain movement of the holding member to a substantially linear motion along a first axis; and

a second axis positioning system, wherein the second axis positioning system comprises a second set of flexure linkages coupled to the holding member, wherein the second set of flexure linkages is configured to constrain movement of the holding member to a substantially linear motion along a second axis.

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